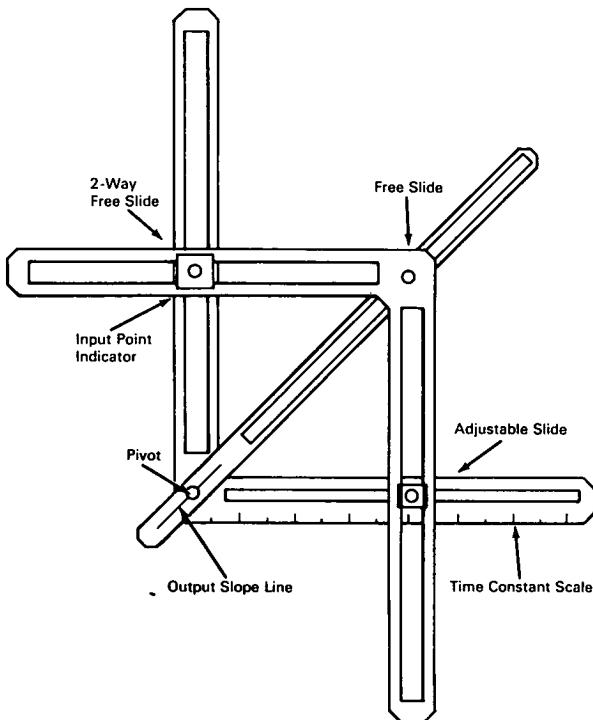


NASA TECH BRIEF



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Tool Reconstructs Data Input Points Corresponding to First Order Output Graph



A tool has been devised as an aid in the graphic determination of input values for any first order lag system of known gain and time constant where the corresponding output function is displayed graphically and can be described by a first order differential equation. This tool permits a rapid reconstruction of input points and can be used by anyone without special training in the solution of differential equations. The input curves are readily plotted on the same sheet as the output graphs. An example of the advantageous application of this tool is in the reconstruction

of actual time dependent temperature transients from temperature measurements (using thermocouples or resistance thermometers, for which the time constants are normally specified by the manufacturer).

Note:

Inquiries concerning this tool may be directed to:
 Technology Utilization Officer
 Marshall Space Flight Center
 Huntsville, Alabama 35812
 Reference: B68-10154

(continued overleaf)

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: R. E. Biggs
of North American Rockwell Corporation
under contract to
Marshall Space Flight Center
(MFS-18003)